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**FERNALD ENVIRONMENTAL MONITORING OHIO EPA RESULTS FROM
JULY RESIDENTIAL WELL SAMPLING**

09/08/94

OEPA
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LETTER

CITIZEN



State of Ohio Environmental Protection Agency

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H-5723

Southwest District Office

40 South Main Street
Dayton, Ohio 45402-2086
(513) 285-6357
FAX (513) 285-6404

George V. Voinovich
Governor

September 8, 1994

RE: FERNALD
ENVIRONMENTAL MONITORING
OHIO EPA RESULTS FROM JULY
RESIDENTIAL WELL SAMPLING

Mr. A. J. Nieman



Dear Mr. Nieman:

This letter is to provide you with the analytical results of the water samples collected from your well by Ohio EPA's Office of Federal Facilities Oversight staff, Southwest District Office, on July 27, 1994. The split sampling efforts between Ohio EPA and the Fernald Environmental Restoration Management Corporation (FERMCO) are a part of an Agreement in Principle (AIP). The AIP is between the Department of Energy (DOE) and the State of Ohio to provide independent oversight and conduct environmental monitoring.

The analytical results are expressed in concentrations of milligrams per liter (mg/l) and in micrograms per liter (ug/l). These units are equivalent to parts per million (ppm) and to parts per billion (ppb), respectively. The samples collected from your well were analyzed for metals and total uranium. The U.S. Environmental Protection Agency (USEPA) has set drinking water standards, or maximum contaminant levels (MCL), for some metals (see attached definitions/MCLs). However for total uranium, USEPA has only established a proposed standard of 20 ug/l or 20 ppb. All parameters tested from your well water samples were below the maximum contaminant levels (see attached results).

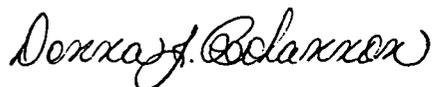
The purpose of split sampling is to check the laboratory's quality of analysis by comparing both parties' sample results. Once FERMCO receives their results, Ohio EPA will make the comparison and you can do the same.

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Mr. A. J. Nieman
September 8, 1994
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If you have any questions concerning this letter and the attached results, or if I can be of any further assistance, please do not hesitate to contact me at (513) 285-6453 or Kelly Kaletsky at (513) 285-6454.

Sincerely,



Donna J. Bohannon
Environmental Monitoring Coordinator
Office of Federal Facilities Oversight

djb

cc: Pat Kraps, FERMCO, w/attachment
Wally Quaider, DOE, w/attachment
Kelly Kaletsky, OEPA/OFFO, w/o attachment

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Sample Description: Water N-4Lab No.: 02

<u>Analyte Description</u>	<u>Result</u>	<u>Units</u>	<u>EQL</u>
Aluminum by ICP	<EQL	mg/L	0.10
Antimony by ICP	<EQL	mg/L	0.10
Barium by ICP	<EQL	mg/L	0.0020
Beryllium by ICP	<EQL	mg/L	0.0020
Cadmium by ICP	<EQL	mg/L	0.0050
Calcium by ICP	126	mg/L	0.20
Chromium by ICP	<EQL	mg/L	0.020
Cobalt by ICP	<EQL	mg/L	0.010
Copper by ICP	1.00	mg/L	0.010
Iron by ICP	<EQL	mg/L	0.20
Magnesium by ICP	60.8	mg/L	0.10
Manganese by ICP	<EQL	mg/L	0.0050
Nickel by ICP	0.050	mg/L	0.020
Potassium by ICP	2.36	mg/L	0.20
Silver by ICP	<EQL	mg/L	0.050
Sodium by ICP	45.2	mg/L	0.50
Vanadium by ICP	<EQL	mg/L	0.010
Zinc by ICP	0.359	mg/L	0.050
Arsenic by GFAA	<EQL	mg/L	0.0050
Lead by GFAA	<EQL	mg/L	0.0050
Mercury by CVAA	<EQL	mg/L	0.0002
Selenium by GFAA	<EQL	mg/L	0.0050
Thallium by GFAA	<EQL	mg/L	0.0050

METAL TESTED

RESULT

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Ross Analytical Services, Inc.
16433 Foltz Industrial Parkway
Strongsville, OH 44136

Project: 555.01

Category: TOTAL URANIUM (KPA)
Method: ASTM 5174-91
Matrix: Water

Report Date: 08/25/94
Date Sampled: 07/27/94
Date Received: 07/28/94

Client ID	Quanterra ID	Parameter	Prep Date	Date Analyzed	Result	Units	2 Sigma Error (+/-)	MDA
N-4	5704-002	Uranium, Total	08/16/94	08/23/94	11.7	UG/L		0.2

ENVIRONMENTAL TERMS - DEFINITIONS

Maximum Contaminant Level (MCL): The maximum permissible level of a contaminant in water delivered to any user of a public water system. MCLs are enforceable standards.

Maximum Contaminant Level Goals (MCLGs): A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows an adequate margin of safety.

Action Level (AL): A level of a chemical that requires installation of treatment techniques for lowering the contaminant level.

Detection Limit (DL): The detection limit is the lowest level of a chemical that can be distinguished from the normal "noise" of an analytical instrument or method.

***Please note. The report supplied by the laboratory is typically used for reporting other radioisotopes. Therefore, here, the MDA is the detection limit (DL).

Estimated Quantitation Limits (EQL's): EQL's are the lowest concentrations that can be reliably measured under routine laboratory conditions.

MCL's FOR METALS

<u>Metal</u>	<u>MCL (mg/l)</u>	<u>MCLGs (mg/l)</u>	<u>AL(mg/l)</u>
aluminum	*listed for future regulation		
antimony	0.006	0.006	
arsenic	0.05		
barium	2	2	
beryllium	0.004	0.004	
cadmium	0.005	0.005	
calcium	*not to be considered		
chromium	0.1	0.1	
cobalt	*not to be considered		
copper	treatment technique	1.3	1.3
iron	*not to be considered		
lead	treatment technique	zero	0.15
magnesium	*not to be considered		
manganese	*listed for future regulation		
mercury	0.002	0.002	
nickel	0.1	0.1	
potassium	*not to be considered		
selenium	0.05	0.05	
silver	*not to be considered		
sodium	*not to be considered		
thallium	0.002	0.0005	
vanadium	*listed for future regulation		
zinc	*listed for future regulation		

*These metals are either on the Drinking Water Priority List (DWPL) to be regulated by USEPA or will not be evaluated for placement on this list due to minimal adverse health effects.